## SEQUENCE LISTING

- <110> Mirkin, Chad A.
   Letsinger, Robert L.
   Mucic, Robert C.
   Storhoff, James J.
   Elghanian, Robert
   Taton, Thomas A.
- <120> NANOPARTICLES HAVING OLIGONUCLEOTIDES ATTACHED THERETO AND USES THEREFOR
- <130> 4149-1-1-1
- <140> Not Yet Assigned
- <141> 2000-06-26
- <150> 60/031,809
- <151> 1996-07-29
- <150> PCT/US97/12783
- <151> 1997-07-21
- <150> 09/240,755
- <151> 1999-01-29
- <150> 09/344,667
- <151> 1999-06-25
- <150> 60/200,161
- <151> 2000-04-26
- <160> 64
- <170> PatentIn Ver. 2.1
- <210> 1
- <211> 20
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence:random
  synthetic sequence
- <400> 1
- aaacgactct agcgcgtata

ŧŪ
ŧŪ
اي. ايت
m
ū
Ö
O
E
ļi
ļ±
TL!
ļ÷

	<210>	2	
	<211>	20	
	<212>	DNA .	
	<213>	Artificial Sequence	
	<220>		
	<223>	Description of Artificial Sequence: random	
		synthetic sequence	
	<400>		. 20
	atggc	aacta tacgcgctag	20
	<210>		
	<211>	·	
	<212>		
	<213>	Artificial Sequence	
7:2	<220>		
ĮŪ.		Description of Artificial Sequence:random	
ŧŪ	12207	synthetic sequence	
(N	<400>	· 3	
1년 73	ccttg	agatt tecete	16
	•		
5 <del></del>		·	
ļ±	<210>	• 4	
(J	<211>	16	
ļ=	<212>	DNA	
ſŲ	<213>	Artificial Sequence	
₽₽	<220>		
	<223>	Description of Artificial Sequence:random	
		synthetic sequence	
	<400>		16
	gaggg	gaaatc tcaagg	
	<210>	<b>5</b>	
	<211>	> 18	
	<212>	> DNA	
	<213>	> Artificial Sequence	
	<220>		
	<223>	Description of Artificial Sequence: random	
		synthetic sequence	

	<400> 5	
	aacttgcgct aatggcga	18
	·	
	<210> 6	
	<211> 26	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
		•
	<400> 6	26
	aagttgcgct ttacggctaa tggcga	20
	<210> 7	
	<211> 15	
13	<212> DNA	
	<213> Artificial Sequence	
a#j	<220>	
įΠ	<223> Description of Artificial Sequence: random	
١Ū	synthetic sequence	
n o o		
	<400> 7	
<b> </b>  -	teteetteee tttte	15
:= :4		
4	<210> 8	
	<211> 15	
÷	<212> DNA	
	<213> Artificial Sequence	
	<220>	·
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 8	
	gaaaagggaa ggaga	15
	7000023300 3202	_
,		
	<210> 9	
	<211> 15	
	<212> DNA	
	<213> Artificial Sequence	

	<220>	•		
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence		
	<400>	. 9		
	ctttt	ccctt cctct		15
	<210>	10		•
	<211>	28		
	<212>	DNA		
	<213>	Artificial Sequence	·	
	<220>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence		
	<400>	-		
	aaacg	actct agegegtata gttgecat		28
٠Ū	<210>	11		
*-[	<211>	28		
n	<212>	DNA		
0	<213>	Artificial Sequence		
å <u>⊸</u> å ≅	<220>			
<u>-</u>	<223>	Description of Artificial	Sequence: random	
Ġ		synthetic sequence		
<u> </u> =				
IJ	<400>	11		
O	atggc	aacta tacgcgctag agtcgttt	•	28
ŀ≐				
	<210>	12		
	<211>	15		
	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence		•
	<400>	12		
	cctate	gacc atgct		15

	<210>	13	
	<211>	30	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	Description of Artificial Sequence:random	
		synthetic sequence	
	<400>	. 13	
		ggtcg ataggaaacg actctagcgc	30
	agcat	ggoog acaggaaacg accoragoge	30
	<210>	14	
	<211>	15	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	Description of Artificial Sequence: random	
Ū		synthetic sequence	
	<400>	14	•
~4 :==		agagt cgttt	15
yı T	5 5		
		•	
	<210>	15	
s	<211>	30	
•	<212>	DNA	
Q	<213>	Artificial Sequence	
ju Tu			
j	<220>		
∳≟	<223>	Description of Artificial Sequence: random	
•		synthetic sequence	
	<400>	15	
	agcato	ggtcg ataggatggc aactatacgc	30
		•	
	<210>		
	<211>		
	<212>		
	<213>	Artificial Sequence	
	<220>		
		Description of Artificial Sequence:random	
	/	synthetic sequence	
		wywerenana wwymania	

	<400> 16	
	gtcgatagga aacgactcta gcgc	24
	<210> 17	
	<211> 30	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	2,4400000000000000000000000000000000000	
	<400> 17	
	agcatggttg ataggaaacg actctagcgc	30
	<210> 18	
	<211> 30	
[]		
ŧ۵	<212> DNA <213> Artificial Sequence	
	(512) VICILICIAL pedacence	
`\ (N	<220>	
4# 1 . 77	<223> Description of Artificial Sequence:random	
¥₩ f¤q	synthetic sequence	
	•	
==- =	<400> 18	
ļ4	agcatgtttg ataggaaacg actctagcgc	30
ļ4 :::		
U D	<210> 19	
	<211> 12	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<b>-,</b>	
	<400> 19	
	tctcaactcg ta	12
	<210> 20	
	<211> 12	
	<212> DNA	

	<b>42207</b>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence		
		-		
	<400>	20		
	cacat	tcagg at		12
	- 5			
	<210>	21		
	<211>			
	<212>			
		Artificial Sequence		
	1000			
	<220>			
		Description of Artificial	Sequence:random	
	1227	synthetic sequence		
		Synthetic bequee		
	<400>	21		
		gttga gagagtgccc acat		24
ı.	tatga	geega gagagegeee acae		
Berne Kaiff Lagi Baiff		•		
j	<210>	22	•	
ž.	<211>			
Ì	<212>			
į		Artificial Sequence		
)	<b>4213</b> 2	Artificial Sequence		
7	<220>			
		Description of Artificial	Company random	
: :	(223)	synthetic sequence	Jequence. Landom	
i		synthetic sequence		
i	<400>	22		
! !		yttga gaateetgaa tgeg		24
i	cacgag	jega gaateetgaa tyeg		<u> </u>
		•		
	<210>	23		
	<211>	-		
	<212>			
		Artificial Sequence		
	<b>&lt;213</b> >	Altilitial Sequence		
	<220>		•••	
		Description of Artificial	Company and an	
	<443>	_	sequence: random	
		synthetic sequence		
	-400·	22		
	<400>	- <del>-</del>		24
	tacgag	gttga gaatcctgaa tgct	•	<b>4</b> 7
		24		
	<210>	24		

	<212>	DNA		
	<213>	Artificial Sequence		
	<220>	•		
		Description of Artificial	Sequence:random	
	(223)	synthetic sequence		
		-		
	<400>			24
	tacgag	gttga gactcctgaa tgcg		24
	<210>			
	<211>			
	<212>			
	<213>	Artificial Sequence		
	<220>			
	<223>	Description of Artificial	Sequence: random	
() .n		synthetic sequence		
j	<400>	25		
;-j		gttga gaateetgaa tge		23
M .n				
C	<210>			
<b>3</b>	<211><212>			
ş		Artificial Sequence		
j Li	(213)	ALLITOTAL POSTULIO		
TU	<220>			
Ö	<223>	Description of Artificial	Sequence: random	
<b>}</b> =		synthetic sequence		
	<400>	26		
		gttga gacateetga atgeg		25
	<b>-</b>			
	<210>	27		
	<211>			
	<212>			
	<213>	Artificial Sequence		
	.000			
	<220>	Description of Artificial	Sequence: random	
	<b>&lt;223&gt;</b>	synthetic sequence	<del></del>	
		<u> </u>		
	<400>	27		

<211> 24

<210> 31 <211> 72 <212> DNA <213> Artificial Sequence

<220>

## <223> Description of Artificial Sequence:random synthetic sequence

<400>	31	
tacga	gttga gaccgttaag acgaggcaat catgcatata ttggacgctt tacggacaac	60
atcct	gaatg cg	72
	•	
-		
<210>	32	
<211>	48	
<212>		
<213>	Artificial Sequence	
	•	
<220>	m	
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
<400>	32	
		48
50050		
<210>	33	
<211>	12	
<212>	DNA	
<213>	Artificial Sequence	
<220>	•	
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
<400>	22	
		12
CCCCa	actog ta	
<210>	34	
<211>	24	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
4.0.0		
<400>		24
tacgag	gttga gaateetgaa tgeg	44
-2105	35	

Ü
١Ū
Ş
4.4
M
ŧ۵
5
ļi
13
I L
4 4
<b>ļ</b> 4
4 4

<211> 12	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:random	
synthetic sequence	
<400> 35	
cgcattcagg at	12
<210> 36	
<211> 141	
<212> DNA	
<213> anthrax	
<400> 36	
ggcggatgag tcagtagtta aggaggctca tagagaagta attaattcgt caacagaggg	60
attattgtta aatattgata aggatataag aaaaatatta tocagggtta tattgtagaa	
attgaagata ctgaagggct t	14
#103443414	
<210> 37	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:random	
synthetic sequence	
<400> 37	
taacaataat ccctc	15
<210> 38	
<211> 15	
<211> 13 <212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:random	
synthetic sequence	
-	
<400> 38	
atcettatea atatt	15

	<211> 30	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 39	
	tgageeteet taactaetga eteateegee	30
	.010. 40	
	<210> 40	
	<211> 25 <212> DNA	
	<213> Artificial Sequence	
	(213) Mitilitial Bequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
4	•	
	<400> 40	
<b>⊒</b> =,	tgttgacgaa ttaattactt ctcta	25
<del>-</del> -		
₽*	·	
÷	<210> 41	
7	<211> 27	
à	<212> DNA	
U	<213> Artificial Sequence	
<b>-</b>		
4	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 41	
	tataacctg gataatattt ttcttat	27
	<210> 42	
	<211> 29	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	

<210> 39

	aagccttca gtatcttcaa tttctacaa	43
		•
	<210> 43	
	<211> 22	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence:random	
	synthetic sequence	
	synthetic bodies	
	<400> 43	
	tctcaactcg taaaaaaaa aa	22
	<210> 44	
ran,	<211> 24	
	<212> DNA	
i≓ .Ti	<213> Artificial Sequence	
ñ	<220>	
Ō	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	•	
•	<400> 44	
:=== :==	tacgagttga gaatcctgaa tgcg	24
	·	
	<210> 45	
. <u></u>	<211> 22	
	<212> DNA	
	<213> Artificial Sequence	
	•	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 45	
		2:
	aaaaaaaaa cgcattcagg at	•
	<210> 46	
	<211> 22	
	<212> DNA	
	<213> Artificial Sequence	

<400> 42

	<220>			
		Description of Artificial	Sequence: random	
	(2437	synthetic sequence		
		Pluguette pedarite		
	<400>	46		
	tctca	actcg taaaaaaaaa aa		22
		·		
	<210>	47		
	<211>	22		
	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
		Description of Artificial	Sequence: random	
		synthetic sequence	-	
	<400>	47		
		aaaa cgcattcagg at		22
.D	<210>	48		
*-	<211>	24		
M	<212>	DNA		
(A)	<213>	Artificial Sequence		
Ö				
5 mm	<220>		<b>a</b>	
ļ.	<223>	Description of Artificial	Sequence: random	
[]		synthetic sequence		
)± TU	<400>	48		
		gttga gaatcctgaa tgcg		24
i-		-		
	<210>	49		
	<211>	24		
	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
		Description of Artificial	Sequence: random	
		synthetic sequence	-	
		- <del>-</del>		
	<400>	49		
	ctact	tagat ccgagtgccc acat		24

<210>	50	
<211>	12	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>		
•	synthetic sequence	
<400>	50	
cgcat	tcagg at	12
.23.05	E1	
(213)	Withingtar seducate	
-22 <b>0</b> >		
	Description of Artificial Sequence:random	
\#20 <i>&gt;</i>	. <del>"</del>	
<400>	51	
aaaaa	aaaa aaaaaaaaa cgcattcagg at	32
	•	
<210>	52	
<211>	32	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	-	
	synthetic sequence	
<400>	52	
cgcati	tcagg atwwwwwww wwwwwwww ww	32
<210>	53	
<213>	Artificial Sequence	
	<del>-</del>	
<220>		
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
	<211> <212> <213> <220> <223>  <400> cgcat  <210> <211> <212> <213>  <400> aaaaaa  <210> <2213>  <400> cgcat  <210> <211> <212> <213>  <220> <211> <212> <213>  <220> <2213>  <400> cgcat  <210> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>  <220> <2213>	<pre>&lt;223&gt; Description of Artificial Sequence:random</pre>

	<400> 53	<u>:</u>	
	atcctgaatg cg	1	2
	• -		
	<210> 54		
	<211> 12		
	<212> DNA		
	<213> Artificial Sequence		
	<220>	_	
	<223> Description of Artificial Sequence:	random	
	synthetic sequence		
	<400> 54	•	2
	atcctgaatg cg	_	4
	•		
	.010. 55		
	<210> 55		
5	<211> 20		
Ō	<212> DNA		
	<213> Artificial Sequence		
	<220>		
Π	<220> <223> Description of Artificial Sequence:	random	
0	synthetic sequence	· · · · · · · · · · · · · · · · · · ·	
]	synthetic seddones	·	
:=d	<400> 55		
å	20222000000000000000000000000000000000	2	0
_			
<u>-</u>			
U	<210> 56		
	<211> 27		
스	<212> DNA		
	<213> Anthrax		
	<400> 56	_	_
	ggattattgt taattattga taaggat	2	7
	·		
	<210> 57		
	<211> 12		
	<212> DNA		
	<213> Anthrax		
	.400- 57		
	<400> 57	1	L <b>2</b>
	taacaatnat cc		

	<210> 58	
	<211> 15	•
	<212> DNA	
	<213> Anthrax	
	<400> 58	
	atccttatca atatt	15
	<210> 59	
	<211> 12	
	<211> 12 <212> DNA	
	<213> Artificial Sequence	
	(21) ALCIDIO DOGUMENT	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 59	
]	tctcaactcg ta	12
H		
ħ	<210> 60	
<u> </u>	<211> 24	
<u> </u>	<212> DNA	
7	<213> Artificial Sequence	
_	<220>	
≟ =4,	<223> Description of Artificial Sequence:random	
# #	synthetic sequence	•
U	by mondeas a squared	
3	<400> 60	
<u>-</u>	tacgagttga gaatcctgaa tgcg	. 24
	<210> 61	
	<211> 48	
	<212> DNA	
	<213> Artificial Sequence	
	.000	
	<220> <223> Description of Artificial Sequence:random	
	synthetic sequence	
	SAUCHECIC Bedgemen	
	<400> 61	
	gcgtaagtcc taacgtacta acggagcaga attgccagag ttgagcat	4:

	<210>	62	
	<211>	72	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	Description of Artificial Sequence: random	
		synthetic sequence	
	<400>		
	gcgtaa	agtoc tacaacaggo atttogoagg ttatataogt actaacggag cagaattgoo	
	agagti	tgagc at	72
	<210>	63	
	<211>	24	
	<212>		
	<213>	Artificial Sequence	
s ==.	<220>		
:== ;=a,	<223>	Description of Artificial Sequence: random	
		synthetic sequence	
	<400>	63	
.Fi	tgcate	gattg cctcgtctta acgg	24
j		<u>.</u>	
]	<210>	6.4	
	<211>		
:≟: :=:	<211>		
		Artificial Sequence	
1	~~~/	***************************************	
]	<220>		
4	<223>	Description of Artificial Sequence:random	
		synthetic sequence	
	<400>		
	gttgt	ccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg	48